

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/088310 A1

- (51) International Patent Classification⁷: G01N 33/52, 33/574, C12Q 1/68
- (21) International Application Number: PCT/AU2004/000429
- (22) International Filing Date: 2 April 2004 (02.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2003901671 2 April 2003 (02.04.2003) AU
- (71) Applicant (for all designated States except US): ADELAIDE RESEARCH & INNOVATION PTY LTD [AU/AU]; Level 11, 10 Pulteney Street, Adelaide, South Australia 5005 (AU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HUSSEY, Nicole, Dominique [AU/AU]; 35 Northern Avenue, West Beach, South Australia 5024 (AU). HU, Dong, Gui [CN/AU]; Unit one, Number one, Rofo Court, Woodville Park, South Australia 5011 (AU).
- (74) Agent: PHILLIPS ORMONDE & FITZPATRICK; 367 Collins Street, Melbourne, Victoria 3000 (AU).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DB, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KB, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KB, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2004/088310 A1

(54) Title: COMPARATIVE GENOMIC HYBRIDIZATION

(57) Abstract: The present invention relates to a method of comparing at least one chromosome or part thereof from a cell with a first karyotype with the corresponding chromosome or part thereof from a cell with a second karyotype. The method includes the steps of: (a) amplifying DNA from an isolated chromosome or part of an isolated chromosome; (b) attaching the amplified DNA to a solid substrate; (c) amplifying DNA from one or more cells with a first karyotype and amplifying DNA from one or more cells with a second karyotype; (d) labelling the amplified DNA from the one or more cells with a first karyotype with a first label, and labelling the amplified DNA from the one or more cells with a second karyotype with a second label, wherein the first and second labels are detectably different; (e) hybridizing the amplified and labelled DNA from the one or more cells with a first karyotype to the amplified DNA attached to the solid substrate, and hybridizing the amplified and labelled DNA from the one or more cells with a second karyotype to the amplified DNA attached to the solid substrate; and (f) comparing the relative amount of first and second labels hybridized to the amplified DNA attached to the solid substrate.